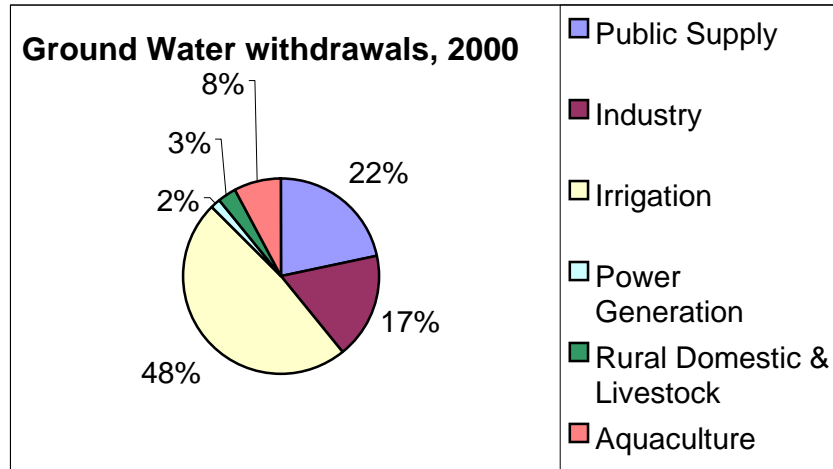


## State of Louisiana Ground Water Conditions

### Groundwater Importance

Ground water is one of Louisiana's most precious resources. As of 2000, groundwater withdrawals averaged 1,600 million gallons per day (MGD). Over half of Louisiana's population relies on ground water as a source of drinking water. There are approximately 1776 public water supplies in the state supplied by ground water, of which 1145 are community supplies. In 2000, public suppliers in Louisiana withdrew 350 MGD from ground water sources, serving 59% of the population. An additional 41 MGD was withdrawn by privately owned

determination of critical ground water areas, authorized the limitation of access to ground water sources in the critical areas, and provided for response to emergency situations. A critical area for the Sparta Aquifer has been applied for. In addition, the Act required development of a plan for implementation of a statewide ground water management system. The Ground Water Management Commission will cease to exist on July 1, 2003, under Act 446. An implementation plan for a Statewide Water Management Program has been provided to the legislature by the Ground Water Management Commission.



domestic wells, serving 12% of the population. Ground water is also an extremely important economic resource in Louisiana. Irrigation withdrawal accounted for 48% of the total ground water withdrawal for 2000; the largest ground water use in the state. Other uses included industry, power generation, and aquaculture.

Louisiana recently had three years of drought that resulted in scrutiny of Louisiana water policies. In addition, an influx of applications for merchant power plants that proposed to use ground water for cooling water heightened the awareness of this issue. Ultimately Act 446 of the 2001 Regular Session of the Louisiana Legislature established the Ground Water Management Commission and the Ground Water Management Advisory Task Force to advise the Commission. The Act provided for the adoption of rules and regulations for the

### Where is it?

There are thirteen major aquifers or aquifer systems underlying the State of Louisiana: Red River alluvial aquifer, Mississippi River alluvial aquifer, Upland Terrace aquifer (north Louisiana), Chicot aquifer system, Chicot equivalent aquifer system (southeast Louisiana), Evangeline aquifer, Evangeline equivalent aquifer system (southeast Louisiana), Jasper aquifer systems, Jasper equivalent aquifer system (southeast Louisiana), Catahoula aquifer, Cockfield aquifer, Sparta aquifer, and the Carrizo-Wilcox aquifer. The Chicot, Evangeline, and Jasper equivalent aquifer systems in southeast Louisiana collectively make up what is known as the Southern Hills aquifer system. Forty-nine percent (800 MGD) of all ground water withdrawn was from the Chicot aquifer system in the southwestern portion of the state. Another 22% (350 MGD)

was withdrawn from the Mississippi River Alluvial Aquifer. Vermilion Parish had the highest withdrawal in the state with 180 MGD from the Chicot aquifer system.

### **How Good Is the Water?**

The Louisiana Department of Environmental Quality (LDEQ) has been managing and operating the Baseline Monitoring Program since 1990. A statewide network of over 200 water wells in thirteen major drinking water aquifers continues to be sampled. Results indicate that water quality is good in these aquifers. While the overall quality of the state's ground water is good, there are over 200 sites where active investigation or remediation of contaminated ground water is taking place not including Underground Storage Tank or Superfund sites. There were also fourteen public water supply systems impacted by volatile organic compound contamination of ground water between 1989 and 2002. The Baseline Program has been instrumental in the initial detection of contaminants at many of the shallow ground water sites and two of the fourteen public supply systems. Even though the overall ground water quality within the state is good, continued statewide ambient monitoring is necessary in order to maintain high quality ground water.

### **Costs of Contamination**

A trailer park in Louisiana had public supply wells contaminated since the last report to Congress. The cost of contamination is high with this case having multiple lawsuits and resulting legal costs plus the cost of attempting to define the extent and source of the contamination. A finite expense cannot be assigned, but it will be in the millions. The upcoming Source Water Protection Program is designed to prevent contamination of public water supplies.

### **Efforts to Protect Ground Water**

Since 1991, LDEQ has implemented a Wellhead Protection Program (WHPP) designed to help

communities identify potential sources of contamination that may pollute drinking water resources. LDEQ is now planning to implement a statewide Source Water Protection Program based on the results of the Source Water Assessment Program (SWAP), which was a requirement of the Safe Drinking Water Act Amendments of 1996. Every ground water and surface water source of public drinking water was assessed to determine its potential susceptibility to contamination. This allowed LDEQ to identify and prioritize the more susceptible systems and communities for protection activities such as education, outreach, and community involvement.

Also, in October 2001, the Governor of Louisiana issued an Executive Order mandating the executive state agencies to promulgate regulations requiring notification of contamination whenever the state agency has confirmed, through sound scientific methods, the presence of an environmental contaminant which exceeds the applicable federal or state health and safety standards and poses a risk of adverse health effects. LDEQ has issued an emergency rule meeting the requirements of the Executive Order and is in the process of promulgating a regulation in accordance with the Executive Order. LDEQ has provided notification of contamination pursuant to its emergency rule, including cases involving ground water contamination, to protect the health, safety and welfare of the people of Louisiana.

### **What Else is Needed?**

Protection funding for adding additional staff is needed. The assessments are current and were intended by Congress to be used to initiate protection activities for the water systems and the communities they serve. There is not enough staff assigned to this project to accomplish Louisiana's Protection Program in a timely manner with the result that the assessments will become outdated